March 1, 1999

Ms. Susan Strachan
Environmental Project Manager
Calpine Corporation
50 West San Fernando Street
San Jose, CA 95113

Dear Ms. Strachan:

DELTA ENERGY CENTER DATA REQUESTS

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission staff requests the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess project alternatives and potential mitigation measures.

Data requests are being made in the areas of: biological resources, cultural resources, facility design, hazardous materials management, land use, public health, transmission system engineering, visual resources and waste management. Written responses to the enclosed data requests are due to the Energy Commission staff on or before March 31, 1999, or at such later date as may be mutually agreed. In the near future, additional data requests will be provided on air quality and water resources.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, please send a written notice to both Chairman William J. Keese, Presiding Member of the Committee for the Delta Energy Center proceeding, and to me, within 15 days of receipt of this notice. The notification must contain the reasons for not providing the information, the need for additional time and the grounds for any objections (see Title 20, California Code of Regulations section 1716 (e)).

If you have any questions regarding the enclosed data requests, please call me at (916) 654-4074.

Sincerely,

Paul C. Richins, Jr.
Energy Facility Siting Project Manager

Enclosure

cc: Delta Energy Center Proof of Service List
Carl Wilcox, Department of Fish and Game
Chris Mobley, National Marine Fisheries Service
Douglas Ward and Victor Carniglia, City of Antioch—Planning Services
Joe Brandt, City of Antioch—Public Works
Randy Jerome, Manager, City of Pittsburg Planning Division
Jeffrey Kolin, Pittsburg City Manager
Ed Wylie, U.S. Army Corps of Engineers
Ken Sanchez U.S. Fish and Wildlife Service
Doug Buchanan, Calpine

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Delta Energy Center Data Requests

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DELTA ENERGY CENTER
DATA REQUESTS
(98-AFC-3)

Technical Area: Biological Resources
Author: Marc Sazaki
Technical Senior: James Brownell

ISSUE: The critical biological resource issues that have been identified to date include wetlands jurisdictional determination and streambed alteration notification and agreement. Wetland and streambed alteration issues exist for the proposed project because of where it and it's related linear facilities will be constructed. Both the U.S. Army Corps of Engineers and the California Department of Fish and Game administer permit processes that the applicant needs to complete in order to fully comply with those permit requirements. If the applicant initiates early contact and requests appropriate advice from both agencies, timing may not be an issue with respect to our siting process; otherwise, there could be delays with respect to these outside permitting factors and to our own process.

There has to be a jurisdictional determination to see if the U.S. Army Corps of Engineers should be involved with respect to issuing any permits, either under Section 404 of the Clean Water Act or Section 10 under the River and Harbors Act. For the Corps to conduct this determination, a wetland delineation has to be conducted. In order for the Corps to do this delineation on their own, considerable time could be required (up to six months). Usually, project sponsors hire a consultant to prepare a wetlands delineation, and then the Corps goes out for a verification visit. Based on the Corps' findings, they will determine if Corps' jurisdiction is appropriate. If so, an environmental review is done to determine the potential impacts on wetlands. The first priority of the Corps is for the project developer to avoid impacts, second, to minimize and mitigate if possible, and the third is to provide wetlands compensation for losses. This process has been initiated by the applicant through telephone contact with the Corps. Staff assignments have been made, and review of the AFC is taking place.

1. Please provide copies of all jurisdictional determinations done for the project which have been submitted to the Corps of Engineers. Indicate whether or not the Corps has provided letters of concurrence, or requests for resubmittal.

2. Please provide the results of any wetland delineation performed and the supporting material prepared for the Corps of Engineers.

3. Please provide a copy of an application for a Section 404 permit, if required.

ISSUE: Where Delta has proposed to install pipelines by trenching or horizontal drilling under sloughs and other water channels, a streambed alteration agreement will be required under Fish and Game Code Section 1603. A determination of the need to enter into the 1603 agreement will be made by CDFG upon receipt of a notification form (FG2023).

This issue would likely apply to some waterways and a channel known as the Lake Alhambra Drain, where trenching across the channel is planned. A thorough analysis of the geology under stream beds where below-channel drilling is planned should be determined as it relates to the potential for drilling related disturbance to cause significant increases of suspended material in the slough, which could be deleterious to aquatic life. While working on a different power plant project nearby, CDFG (Mr. John Waithman) indicated this has happened on other projects where boring under waterways was conducted. If the applicant can persuade CDFG that this problem is not likely to occur, there should be little problem in obtaining a streambed alteration agreement if determined to be necessary.

4. Please provide a copy of the Notification of Streambed Alteration for the project, if submitted to CDFG.

5. Please provide a copy of CDFG's draft Streambed Alteration Agreement, if completed. If required, as determined by CDFG, but not yet completed, when does the applicant expect completion?

ISSUE: The delta smelt is listed "threatened" under both state and federal endangered species laws. Because Lake Alhambra Drain enters into the San Joaquin River, these fish may be subject to impacts related to proposed trenching across the drain upstream from the river. State and federal take authorizations may have to be obtained. Also, the California clapper rail, a state and federal "endangered" species, could be impacted by some of the linear facilities where they cross or are in close proximity to wetlands. Other listed species, as well as vernal pool branchiopods, may be subject to "take" as a result of the project.

6. Please provide copies of the applicant's written requests for both state and federal take authorizations.

7. Please provide any written material developed by the applicant to support endangered species consultations, both state and federal.

8. Please provide copies of all terms and conditions required in state and federal take authorizations.

ISSUE: In Section 8.2.2.1.3 on Page 8.2-41 through 8.2-42, the applicant presents an analysis of the potential effects of cooling tower drift on surrounding vegetation. This analysis focuses on the potential effects of PM_{10} and salinity. The constituents in the cooling water which will be provided by the Delta Diablo Sanitation District treatment facility may be more injurious to vegetation than PM_{10} or salinity.

9. Please expand the discussion to address the probable concentration and fate of individual drift constituents and their potential to impact surrounding vegetation.

Technical Area: Cultural Resources
Author: Gary Walker
Technical Senior: Dale Edwards

ISSUE: Staff is concerned about the applicant's proposal not to monitor ground disturbance at the power plant site and the construction laydown area. The AFC (p.8.3-27) states that "monitoring is not recommended for the plant site itself or at the site construction laydown area." This position is apparently based on the fact that no archaeological remains were found during the surface survey (AFC p.8.3-19). The 1-25-99 AFC Supplement (p.3) also states that "since several prehistoric archaeological sites and isolated artifacts have been found relatively close to the gas pipeline route…or within the gas pipeline and electric transmission line routes… it was judged that the shorelines of New York Slough and/or the San Joaquin River are high probability areas for the presence of archaeological sites. In comparison, the more inland plant site and plant site construction laydown area is judged to be less archaeologically sensitive." However, as the AFC (p.8.3-4) also notes, the City of Pittsburg has designated its entire Planning Area, which includes the power plant site and construction laydown area, as a "Sensitive Area for Native American Cultural Resources." Furthermore, the AFC (p.8.3-4) also notes that most of the archaeological sites in the project area are shell middens that "tend to be located on alluvial flats and along historic bay margins, as well as near water sources." According to Figure 8.15-3 in the Paleontological Resources section of the AFC, the proposed plant site and its vicinity are on alluvial flats. In addition, the archaeological site maps reveal that a number of known sites are located farther from the water than the proposed power plant site and laydown area are. Furthermore, the proposed transmission line route is approximately the same distance from New York Slough and/or the San Joaquin River as the power plant site. Finally, the discovery of only two isolates and a small area of anthropogenic soil along the proposed natural gas and electric line routes does not seem to provide much reason to consider those corridors to be much more sensitive, especially when they cover much more land than the proposed power plant site and construction laydown area do, increasing the likelihood of finding surface resources during a survey. Therefore, please reconsider the possibility of performing at least some monitoring during ground disturbance at the proposed power plant site and construction laydown area.

10. Considering the foregoing discussion, please specify whether the applicant agrees to monitor the proposed power plant site and construction laydown area during ground disturbance. If the applicant does not agree to do this monitoring, please provide a detailed explanation.

ISSUE: Staff needs accurate information to perform its analysis.

11. The Paleontological Resources section of the AFC (p.8.16-7) states that the proposed power plant site and laydown area are capped with an unknown amount of fill. Please provide any information available regarding the location and depth of fill at the proposed power plant site and laydown area. If it is possible to determine what portions of the area that the fill does and does not cover, please

provide a map showing the area that it covers and showing the location of all expected project-related ground disturbance.

12. Please specify the maximum expected depth and width of any project-related ground disturbance at the power plant site.

13. The AFC (p.8.3-30) contains the following incomplete sentence: "In developing specific mitigation measures to address impacts for any site that cannot be avoided during construction." Please provide a complete version of the sentence.

14. AFC Figure 6.2-10 shows a cross section of the 230 kV underground transmission line. The diagram shows the width to be 33 feet and the depth to be 5 feet "(minimum)." Please specify the expected maximum depth of excavation for the proposed underground electric transmission line.

15. The AFC (p.7-5) states that the trench for the natural gas pipeline will be 3 to 4 feet wide, and that "trench depth will be sufficient to meet BN&SF requirements. However, the pipeline will be buried to provide a minimum cover of 36 inches." The AFC (p.7-1) also states that the pipeline will be 16 inches [presumably in diameter]. This adds up to a minimum excavation depth of 52 inches. Please specify the expected maximum depth of excavation for the proposed natural gas pipeline.

16. The AFC (p.8.3-13) states that site CA-CCO-715H consists of three discrete historic foundation remains. The AFC also states that two of the foundation features are associated with an abandoned historic PG&E power plant that lies a considerable distance north of the preferred electric transmission line Route 1. Please specify whether the foundation slab and footing foundations for the stone calcining operation are a similar distance north of the preferred electric transmission line Route 1.

17. The AFC (p.8.3-13) states that "the proposed underground segment of the preferred electric transmission line Route 1 might pass beneath" the historic Black Diamond Mine Grammar School. According to revised Figure 8.3-8, the school is on the south side of West Eighth Street. Since the transmission line would be placed within Eighth Street, how could the transmission line pass beneath the school?

18. The AFC (p.8.3-17) states that "the proposed underground segment of the preferred electric transmission line Route 1 might pass beneath" the historic St. Peter Martyr Church. According to revised Figure 8.3-8, the church is on the north side of West Eighth Street. Since the transmission line would be placed within Eighth Street, how could the transmission line pass beneath the church?

Technical Area: Facility Design
Author: Kisabuli
Technical Senior: Steve Baker

ISSUE: The information below is requested to ensure that the project design will comply with the 1997 Uniform Building Code (UBC) 1998 California Building Code (CBC) and Contra Costa County design requirements.

19. Section 8.14.3.4 and page 8.14-9 of the AFC states that …"storm water discharge will be designed for a 25-year, 24-hour storm" Contra Costa County Planning Department requires a 100-year, 24-hour design storm. Please show how you will comply with Contra Costa County design requirements.

20. The 1997 UBC/1998 CBC does not allow a 33% stress increase for seismic and wind design. Load combinations of section B3.2.11.2, Appendix 9B and page B-8 of the AFC include a 33% stress increase. Please show how using the load combinations of section B3.2.11.2 (steel design) will comply with the UBC/CBC design requirements.

21. Section 1634 of the 1997 UBC/1998 CBC requires that the design of nonbuilding structures (most powerplant structures and components fall under this category) shall use the load combinations or factors specified in Section 1612.2 or 1612.3. The load factors and load combination of section B3.2.11.2, Appendix B of the AFC differs very markedly with the UBC/CBC requirements. Please show how using the load factors and load combinations of section B3.2.11.2 will comply with the UBC/CBC design requirements of Section 1612.2 or 1612.3.

22. Section 1629.8.4 of the 1997 UBC/1998 CBC requires dynamic analysis for: (a) structures having a stiffness, weight or geometric vertical irregularity of Type 1, 2 or 3, as defined in Table 16-L, or structures having irregular features not described in Tables 16-L and 16-M; (b) structures over five stories or 65 feet in height in Seismic Zones 3 and 4 not having the same structural system throughout their height; and (c) structures regular or irregular, located on Soil Profile Type SF. In order for staff to evaluate compliance:

    a. Please provide the site Soil Profile Type as defined in Section 1636 of the 1997 UBC/1998 CBC.

    b. Of the major structures, equipment and components identified in the AFC, (Appendix 9B, Section 4) please indicate those that will require dynamic analysis so that the design of major structures, equipment and components will comply with code, and also with the Hazard Mitigation Criteria of Section 5, Appendix B of the AFC.

23. Appendix 9B, Section 5 and page B-29 of the AFC states that …"the project seismic design criteria were developed …to correlate performance criteria with assumed risk level, and that seismic risk associated with each source of the major

fault was assessed considering historical magnitude and probability of occurrence". For us to understand how this risk assessment will be used in seismic design, please provide the report (you need only provide five copies of the report).

ISSUE: A grading and drainage plan for the power plant and substations with legible contour elevations is necessary so that an independent analysis of the on-site and off-site drainage conditions (before and after construction) can be determined. Without a preliminary grading and drainage plan, the run-on and run-off surface water flow can not be readily determined. The AFC included a drainage plan but not a grading plan.

The proposed drainage gradient for the site is not in conformance with the 1998 edition of the CBC Appendix 33 section 3315.4. The shallow drainage gradient could lead to on-site drainage problems such as ponding of water within the footprint of the power plant.

24. Please submit a preliminary grading and drainage plan (24"x36") for the power plant and the substation at a scale at which the contour interval elevations are legible. Also, please include the contour interval and a bar scale in the legend of the grading plan (1"=50 feet).

25. In the AFC, the applicant states that "The preferred slope away from structures will be 1% with a minimum slope of 0.5%. The 1998 edition of the CBC Section 3315.4 states that "Building pads shall have a drainage of 2% toward approved drainage facilities, unless waived by the building official." An exception allows the applicant to lower the gradient to 1% if certain conditions are met. Please reassess the site grading and drainage to comply with the UBC/CBC and applicable LORS.

Technical Area: Hazardous Materials Management
Author: Rick Tyler
Technical Senior: Steve Baker

ISSUE: In the Application for Certification, Section 8.12.3, a protocol for modeling a worst case accidental release of anhydrous ammonia was provided.

26. Please provide the results of modeling as provided in the protocol. However, 300 PPM should be substituted for 500 PPM as one of the modeled distances.

ISSUE: In the Application for Certification, Section 8.12.4, a protocol for analysis of public vulnerability to an accidental pipeline failure was provided. This analysis is needed to assess the potential for impacts on public health in the event of an accidental natural gas release from the pipeline.

27. Please provide the results of the vulnerability analysis described in Section 8.12.4 of the AFC.

Technical Area: Land Use
Author: Eric Knight
Technical Senior: Dale Edwards

ISSUE: The Delta Energy Center AFC has identified the need for a height variance for the 144-foot tall HRSG stacks. The City of Pittsburg Zoning Ordinance (section 18.54.015) restricts the maximum height of structures in a General Industrial District to 50 feet (this does not apply to transmission line towers). Section 18.54.100 allows an increase over the maximum height restriction in a General Industrial District "equal to the number of additional feet the structure is set back from each property line beyond the minimum yard requirements up to a maximum of 75 feet." To exceed the maximum height allowed the project must go through a public variance process. Per staff's conversations with Pittsburg planning staff, Delta has obtained the necessary application. This application should include all other structures above the height restriction. The variance process can take between 6 and 8 weeks.

28. Staff requests a copy of Delta's variance application and, when it becomes available, the Pittsburg zoning administrator's decision and required findings for the variance. If any conditions are required of the applicant in granting the variance, please provide staff with those conditions of approval.

ISSUE: The Pittsburg Zoning Ordinance (section 18.54.010) requires a use permit for heavy manufacturing industrial uses (including power generation plants) in a General Industrial District. A use permit is also required for transmission lines proposed in a residential district (section 18.80.030). In their AFC, Delta has identified the need for the transmission line use permit.

29. Staff requests that Delta provide the conditions of approval that the City would require if the Energy Commission did not have the exclusive authority to certify the power plant and transmission line.

Technical Area: Public Health
Author: Mike Ringer
Technical Senior: Chris Tooker

ISSUE: The health risk assessment should include potential health impacts of all toxic emissions from facility operation. CAPCOA Guidelines (Table III-5) require noninhalation pathways to be included if certain substances are emitted. Since the DEC project has the potential to emit these substances, risks from these additional pathways should be included.

30. Please provide a revised health risk assessment that includes evaluation of noninhalation pathways for the substances listed in CAPCOA Table III-5 that may be emitted by the DEC project (arsenic, cadmium, lead, mercury, pahs). In addition to inhalation, the additional pathways are soil ingestion, dermal exposure, and mother's milk.

ISSUE: DEC will comply with pending regulations regarding the use of recycled water from sanitary sewage treatment plants for cooling. The regulations will require that such water be disinfected tertiary recycled water.

31. When will DEC decide which of the two options (obtain tertiary treated water from Delta Diablo or install onsite treatment) listed in the AFC will be pursued?

32. If the Delta Diablo option is chosen, does the treatment plant have adequate capacity to supply DEC? If expansion of the treatment plant is required, what will the timing be, including any CEQA considerations?

Technical Area: Transmission System Engineering
Author: Ean O'Neill
Technical Senior: Al McCuen

ISSUE: Staff needs a complete interconnection study to analyze the reliability implications of connecting the Delta project to the PG&E system. Such interconnection must comply with North American Electric Reliability Council (NERC) Planning Standards, Western Systems Coordinating Council (WSCC) Reliability Criteria and local (PG&E) area reliability criteria in accordance with the California Independent System Operator (Cal-ISO) tariffs and Control procedures.

By letter dated February 4, 1999 from Douglas W. Buchanan, staff received draft copies of an apparently incomplete interconnection study for the Delta project containing draft power flow study results. The documents state that "PG&E is still in the process of completing generation sensitivities with the Delta Energy Plant interconnected to the Contra Costa 230 kV bus".

33. Please provide a complete interconnection study which demonstrates that the Delta project can be reliably accommodated by the existing system or in the alternative identify the mitigation measures which are recommended, and which the applicant accepts, to assure conformance with NERC, WSCC and local area reliability criteria. While staff does not have sufficient information at present to comment in detail on what additional information is missing, the study results must be of sufficient scope and detail to *confidently* identify whether there would be "downstream" transmission upgrades and whether remedial action scheme(s) are required. Additionally, the study scope must be sufficient for the Cal-ISO's review and the preparation of their Conclusions, Recommendations and Findings on the proposed interconnection in accordance with the Cal-ISO/PG&E Transmission Control Agreement, Section 10.

ISSUE: Please also address the following questions regarding the subject draft copies of the Power Flow study results received by letter dated February 4,1999:

34. Identify and describe the "Worst Contingencies" which are indicated by numbers on Attachment 1 and Attachment 3. Identify and describe the contingencies analyzed as listed on Attachments 2 and 4 through 6. Provide a discussion of the implications of both the normal and emergency overloads and the measures under consideration to mitigate the overloads.

35. Please identify "Project A (500MW) " and the "Four Calpine/Bechtel Plants" including the assumed power output of each.

Technical Area: Visual Resources
Author: Gary Walker
Technical Senior:

ISSUE: Staff needs to know the location, size, and type of nearby existing transmission lines and structures in order to accurately assess the existing visual conditions in the area of the proposed project. Staff also needs to know the type of proposed structures that would be built to evaluate their effect on those conditions.

36. AFC Figure 6.2-4 shows that the proposed tangent structures for the electric transmission line will be 105 ft. (typical) and 125 ft. (maximum). However, on p. 1-10 the AFC states that the poles will be from 90 to 100 ft. tall. Please explain this discrepancy.

37. AFC Figure 6.2-7 shows the proposed overhead/underground transition station. The dimension given for the steel pole is 105 ft., but the numbers are printed backwards. The AFC (p.8.11-22) states that the terminal poles will be 100 ft. high. Please specify the correct height for the poles and provide a new Figure 6.2-7 with the correct dimension shown.

38. Please provide a map showing:

    a. the proposed electrical transmission line route;

    b. the existing above-ground transmission lines within one-quarter mile of the proposed transmission line routes;

    c. which existing lines are 230 kV, 113 kV, or 60 kV;

    d. the type of structures (lattice or pole) and material (wood or steel) for each existing line.

39. Please specify the height of the transmission structures for each of the existing transmission lines within one-quarter mile of the proposed transmission line routes.

40. The text at the beginning of p.6-16 regarding the proposed transmission line route is an incomplete sentence that is not continued from the previous sentence on p.6-10. Please provide the missing text.

ISSUE: Staff needs to determine the accuracy of the visual simulations provided in the AFC.

41. The AFC contains visual simulations of the power plant and transmission line. The AFC (p.8.11-8) states that “For each viewpoint, viewer location was digitized from topographic maps and scaled aerial photos, using 5 feet as the assumed eye

level. Computer 'wire frame' perspective plots were then overlaid on the photographs of the views from the KOPs to verify scale and viewpoint location." Please provide information that allows a reviewer to verify that the simulated sizes of the proposed facilities are accurate. Include a description of the means for verifying the accuracy of the simulations. Specify whether dimensions of existing features were used. If so, specify those features, their locations on a map with scale, and their dimensions. Specify whether survey poles or other markers were used. If so, show their location in the photograph and on a map with scale. Provide copies of any intermediate documents used in creating the simulations, including photographs showing control points, and wire frame overlays of project components.

ISSUE: Staff needs information regarding project alternatives to perform its analysis.

42. The AFC (p.5-5.) states that "other industrial uses are located to the south of the site. To the east of the site is a residential area." Examination of AFC Figure 5.3-1 indicates that the wording should be "other industrial uses are located to the north of the site. To the southwest of the site is a residential area." Please confirm whether this wording change is accurate.

43. The AFC (p.5-7, Table 5.3-2) states that for the proposed site proximity to sensitive noise receptors is approximately 2,300 ft. However, on pp.8.11-13 and 8.13-14 the AFC states that "the closest views of the site that are available to the general public are from the periphery of the Dow lands, especially from the area along the Pittsburg-Antioch Highway," that "from some areas along the Pittsburg-Antioch Highway…much of the project site is visible, and lies within 1,500 feet from the road," and that in regard to the highway "on the south, it is bordered by a small apartment complex (Casa Medanos)." Please specify the correct distance from the site to the Casa Medanos apartments.

44. The AFC (p.5.-7) states in regard to the three alternative electric transmission line routes that "the impact on the environment of these alternative routes is discussed in a number of sections of the AFC." However, such a discussion is not provided in the Visual Resources section. Please provide such a discussion regarding Visual Resources.

45. The AFC (Section 6.1.4, p.6-2) states in regard to the proposed transmission line that "An alternative route was identified to be equal or preferable to the proposed route discussed above, pending final evaluation of ongoing rights-of-way and environmental impacts…This is referred to as the 'Southern Route.' The Southern Route will be pursued as the preferred alternative within this Application." However, staff has heard informally that this route is no longer being pursued.

    a. Please confirm that the "Southern Route" is no longer being pursued.

b. If the "Southern Route" is no longer being pursued, please explain why. If the "Southern Route" is being pursued, please provide visual resources information at the same level of detail as the proposed route.

ISSUE: Staff needs accurate information to perform its analysis.

46. AFC Figure 8.11-1 shows the location of photo viewpoints, the primary viewshed, and key observation points. According to the text (p.8.11-16) Key Observation Point 2 is on the eastern fringes of the DOW lands. However, the figure labels the view point representing this area as Key Observation Point 3. Please provide a corrected version of the figure.

47. The AFC (p.8.11-23) contains an incomplete sentence: "Because of the flat, open nature of the area between East Santa Fe Avenue and the plant, the [missing word(s)] has the potential to be highly visible from this residential neighborhood, changing the composition of the existing view." Please provide a correct version of the sentence.

ISSUE: Staff needs to know how the applicant intends to comply with applicable laws, ordinances, regulations, and standards.

48. The AFC (p.8.11-20) states in regard to the view from the Pittsburg-Antioch Highway and KOP 1 that "the plant will eliminate the glimpses of the river that are now visible and most of the views of the hills on the far side of the river (Figure 8.11-3a). The existing quality of this specific view would be altered by the DEC project." The AFC (p.8.11-26, Table 8.11-3) also notes that the Pittsburg General Plan contains policies that "preserve the feel of a city surrounded by open space and preserve view corridors to the hills and to the waterfront" and to "make preservation of view corridors to the hills and to the waterfront a consideration in project design and review." The AFC implies that the project will attain consistency with these policies with "landscape measures designed to screen the project and improve the appearance of the area along the road."

    a. The AFC (p.8.11-20) also states that "project sponsors have initiated discussions with the City of Pittsburg to develop a vegetation plan for the north side of the Pittsburg-Antioch Highway right-of-way." Please describe the progress of these negotiations and any plans for additional negotiations

    b. Please explain whether the applicant has obtained confirmation from the City of Pittsburg that this mitigation will achieve consistency with the policies regarding views of the river and hills.

    c. One of the reasons that the AFC (p.8.11-26) cites for concluding that the impact is considered minor is that "this view is not a view from residences." However, the AFC (p.8.11-18) also states that "a small residential complex" is located along the south side of the highway at this point. Please explain this apparent discrepancy.

49. The AFC (Table 8.11-3, p.8.11-26) states that to comply with the land use policy to rely on the Architectural Review Process, "the project will undergo design review under the process established in the Pittsburg Zoning Ordinance."

    a. Please explain the steps and the specific actions that the applicant intends to take to comply with this process.

    b. Please explain how the applicant intends to integrate the design review process with the AFC process.

    c. Please provide the proposed schedule for each step in the design review process.

50. The AFC (Table 8.11-3, p.8.11-26) states that "the project will be subject to and comply with the setback, landscaping, and screening requirements established in the Pittsburg Zoning Ordinance."

    a. Please explain the steps and the specific actions that the applicant intends to take to comply with these requirements.

    b. Please provide the proposed schedule for each step in the process.

ISSUE: Staff needs to know the characteristics of the visible cooling tower plume for the project.

51. The AFC (p.8.11-19) states that "under some meteorological conditions, the moist air emanating from the fan cones of the cooling towers will create a visible plume of condensed water vapor. The size of the plume will depend on the particular meteorological conditions at the time." Please provide the following information:

    a. Quantified estimates of the expected maximum and average height and width.

    b. The data, assumptions, and calculations used to derive these estimates, including the model used.

    c. Quantified estimates of the expected frequency of occurrence and duration, specifying:

        1) the number of hours that the plume will be visible, for each hour of the day per year;

        2) the total number of hours per year that the plume will be visible;

        3) the percentage of the total number of hours per year that the plume will be visible;

4) the number of daylight hours per year that the plume will be visible;

5) the percentage of daylight hours per year that the plume will be visible; and

6) the data, assumptions, and calculations used to derive these estimates, including the model used.

ISSUE: Staff needs to know how characteristics of the HRSG exhaust stack plume for the project.

52. Please provide the following information:

a. Quantified estimates of the expected maximum and average height and width.

b. The data, assumptions, and calculations used to derive these estimates, including the model used.

c. Quantified estimates of the expected frequency of occurrence and duration, specifying:

(1) the number of hours that the plume will be visible, for each hour of the day per year;

(2) the total number of hours per year that the plume will be visible;

(3) the percentage of the total number of hours per year that the plume will be visible;

(4) the number of daylight hours per year that the plume will be visible;

(5) the percentage of daylight hours per year that the plume will be visible; and

(6) the data, assumptions, and calculations used to derive these estimates, including the model used.

ISSUE: Staff needs to know how mitigation for cumulative visual impacts will be achieved.

53. The discussion of cumulative visual impacts in the AFC (Section 8.11.4, p.8.11-23) addresses the cumulative effect of a) the proposed electric transition station at the east end of Santa Fe Avenue and b) the sound wall proposed in relation to the Pittsburg District Energy Facility. The AFC states that “some of the landscaping the applicant proposes for the buffer area between the street and the

sound wall could help screen the station's taller elements." The AFC (p.8.11-24) also states that "Calpine/Bechtel will work with USS-POSCO, the City of Pittsburg, and nearby residents to develop a landscape plan for the area around the overhead/ underground transition station at the intersection of East Santa Fe Avenue and Columbia Streets." The applicant for the PDEF has stated that they already have a committee to develop a landscaping plan for the sound wall. Please explain what steps the DEF applicant will take to coordinate with this committee to ensure that the landscaping for the buffer area screens the taller elements of the DEF transition station.

ISSUE: The visual impact of the proposed project on recreationists on New York Slough needs to be addressed.

54. The AFC includes visual character photos for the project vicinity (Figures 8.11-2a-c). Please provide similar photos from a location representative of views for recreational boaters on New York Slough.

55. Please provide a full-page color copy of a photograph of the proposed power plant site from a location on New York Slough that is representative of recreationists' views of the site (Key Observation Point 4).

56. Please provide a full-page color simulation of the proposed project using the photograph specified in the previous data request as a base.

ISSUE: AFC Figure 8.11-1 shows the location of photo viewpoints, viewshed, and key observation points. The following additional information is needed.

57. Please provide a revised version of AFC Figure 8.11-1 to include:

- the new Key Observation Point 4;
- expansion of the viewshed to include the area from which recreationists on New York Slough would see the project; and
- the important regional features mentioned in the text.

58. The AFC (p.8.11-13) states that "Figure 8.11-1 shows the project viewshed, that is, the areas from which the proposed power plant and the overhead portion of the project's transmission line are likely to be visible."

59. Please explain why from the viewshed the power plant and the overhead portion of the project's transmission line are "likely to be visible" rather than "would be visible."

60. The legend for AFC Figure 8.11-1 uses the term "Primary Viewshed. Please explain how that term differs from the term "viewshed" used in the text, and provide a revision either to the text or to the figure to reconcile the difference.

Technical Area: Waste Management
Author: Mike Ringer
Technical Senior: Chris Tooker

ISSUE: Construction of linear facilities may disturb earth that has been contaminated by toxic substances, resulting in additional waste that must be managed.

61. Please provide information on any known sites (e.g., hazardous substance release sites, leaking underground tanks, groundwater pollution) which may be encountered during excavation for linear facilities.